

Title (en)  
METHOD AND SYSTEM FOR PRODUCING ONE OR MORE OLEFINS

Title (de)  
VERFAHREN UND ANLAGE ZUR HERSTELLUNG EINES ODER MEHRERER OLEFINE

Title (fr)  
PROCÉDÉ ET INSTALLATION POUR LA PRÉPARATION D'UNE OU PLUSIEURS OLÉFINES

Publication  
**EP 3938337 A1 20220119 (DE)**

Application  
**EP 20707279 A 20200304**

Priority  
• EP 19163320 A 20190315  
• EP 19163321 A 20190315  
• EP 2020055737 W 20200304

Abstract (en)  
[origin: WO2020187572A1] The invention relates to a method (100) for producing one or more olefins, in which a reaction mixture is formed, containing oxygen and one or more paraffins, and in which a portion of the oxygen in the reaction mixture is reacted with a portion of the paraffin/s, producing a process gas, via an oxidative method to form the olefin/s, wherein the process gas contains at least the unreacted portion of the paraffin/s and the oxygen, the olefin/s, one or more acetylenes, carbon dioxide and water. The method involves the process gas or a gas mixture, formed using at least one portion of the process gas, partially or entirely undergoing the following processes in the given order: condensate separation (2); compression (3); at least partial removal (4) of the oxygen and the acetylene/s; and one or more stages of a carbon dioxide removal (5); wherein the at least partial removal (4) of the oxygen and the acetylene/s occurs simultaneously and via a catalytic reaction using a catalyst containing copper oxide or ruthenium, and wherein the catalytic reaction occurs at least partially in the form of a hydrogenation. The invention also relates to a corresponding system.

IPC 8 full level  
**C07C 5/48** (2006.01); **C07C 2/82** (2006.01); **C07C 7/09** (2006.01); **C07C 7/148** (2006.01); **C07C 7/163** (2006.01); **C07C 7/167** (2006.01); **C07C 11/04** (2006.01)

CPC (source: EP US)  
**B01J 23/72** (2013.01 - US); **B01J 23/74** (2013.01 - US); **C07C 2/82** (2013.01 - EP); **C07C 2/84** (2013.01 - US); **C07C 5/48** (2013.01 - EP US); **C07C 7/005** (2013.01 - EP); **C07C 7/09** (2013.01 - EP); **C07C 7/148** (2013.01 - EP); **C07C 7/14858** (2013.01 - EP); **C07C 7/163** (2013.01 - EP); **C07C 7/167** (2013.01 - EP US); **C07C 2521/04** (2013.01 - EP); **C07C 2523/72** (2013.01 - EP US); **C07C 2523/74** (2013.01 - US); **C07C 2523/889** (2013.01 - EP); **Y02P 20/52** (2015.11 - EP)

C-Set (source: EP)  
1. **C07C 2/82 + C07C 11/02**  
2. **C07C 5/48 + C07C 11/04**  
3. **C07C 7/005 + C07C 11/04**  
4. **C07C 7/09 + C07C 11/04**  
5. **C07C 7/148 + C07C 11/04**  
6. **C07C 7/14858 + C07C 11/04**  
7. **C07C 7/163 + C07C 11/04**  
8. **C07C 7/167 + C07C 11/04**

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2020187572 A1 20200924**; CA 3132101 A1 20200924; CN 113574039 A 20211029; CN 113574039 B 20241015; EP 3938337 A1 20220119; EP 3938337 B1 20230426; US 11560344 B2 20230124; US 2022153661 A1 20220519

DOCDB simple family (application)  
**EP 2020055737 W 20200304**; CA 3132101 A 20200304; CN 202080021292 A 20200304; EP 20707279 A 20200304; US 202017439032 A 20200304